

**REMARKS**

In the non-final Office Action, the Examiner rejected claims 1 and 10 under 35 U.S.C. § 102(b) as anticipated by ALLEN (U.S. Patent No. 2,900,610); rejected claim 18 under 35 U.S.C. § 103(a) as unpatentable over ALLEN in view of NAPOLI et al. (U.S. Patent No. 3,792,385); rejected claims 18-20 under the judicially created doctrine of double patenting as unpatentable over claims 1-9 of U.S. Patent No. 6,664,868; and objected to claims 2-5 and 11-13 as allowable if rewritten into independent form.

By way of this amendment, claims 4 and 13 have been canceled without prejudice or disclaimer of the subject matter disclosed therein and claims 1, 3, 10, 12, and 18 have been amended herewith to improve form. Claims 1-3, 5-12, and 14-20 remain pending. Of these claims, claims 6-9 and 14-17 have been withdrawn due to a restriction requirement.

At the outset, Applicant notes with appreciation the indication that claims 2-5 and 11-13 contain allowable subject matter.

Claims 1 and 10 were rejected under 35 U.S.C. § 102(b) as allegedly anticipated by ALLEN. Applicant respectfully traverses the rejection with respect to the claims as now amended.

Amended claim 1 recites a transformer that includes an outer conductor having an inner surface; an inner connector positioned within the outer conductor, and having an outer surface; and a plurality of transformation sections. Each of the plurality of transformation sections includes a shim, where a thickness of at least one of the shims differs from a thickness of at least one other shim. Each of the plurality of transformation

sections provides a particular separation distance between the inner surface of the outer conductor and the outer surface of the inner conductor to yield a particular characteristic impedance for each of the plurality of transformation sections, thereby substantially matching the impedance of the generator to the load.

A proper rejection under 35 U.S.C. § 102 requires that the reference teach every aspect of the claimed invention either explicitly or impliedly. Any feature not directly taught must be inherently present. See M.P.E.P. § 2131. Applicant respectfully submits that ALLEN does not disclose or suggest the combination of features recited in Applicant's amended claim 1.

For example, ALLEN does not disclose or suggest each of the plurality of transformation sections including a shim, where a thickness of at least one of the shims differs from a thickness of at least one other shim. ALLEN does not disclose or suggest a shim. Therefore, ALLEN cannot anticipate claim 1, as now amended.

The above feature is similar to a feature recited in canceled claim 4. Since the Examiner indicated that claim 4 contains allowable subject matter (Office Action, pg. 4), Applicant submits that amended claim 1 is allowable over ALLEN.

For at least the foregoing reasons, ALLEN does not anticipate claim 1.

Claim 10 recites features similar to features recited above with respect to claim 1. Therefore, Applicant submits that claim 10 is not anticipated by ALLEN for reasons similar to the reasons given above with respect to claim 1.

Claim 18 was rejected under 35 U.S.C. § 103(a) as allegedly unpatentable over ALLEN in view of NAPOLI et al. Applicant respectfully traverses the rejection.

Claim 18 recites a transformer that includes an outer conductor having an inner surface; an inner conductor positioned within the outer conductor, and having an outer surface; and a plurality of shims disposed along the inner surface of the outer conductor. Each of the plurality of shims provides a particular separation distance between the inner surface thereof and the outer surface of the inner conductor to yield a particular characteristic impedance for each of the plurality of shims. A thickness of one of the plurality of shims differs from a thickness of another one of the plurality of shims. ALLEN and NAPOLI et al. do not disclose or suggest this combination of features.

For example, ALLEN and NAPOLI et al. do not disclose or suggest a plurality of shims, where a thickness of one of the plurality of shims differs from a thickness of another one of the plurality of shims. The Examiner admitted that ALLEN does not disclose a plurality of shims and pointed to element 20 in Fig. 2 of NAPOLI et al. as allegedly corresponding to the plurality of shims (Office Action, pg. 3). Applicant disagrees.

Element 20 in Fig. 2 of NAPOLI et al. corresponds to movable tuning slugs. NAPOLI et al. discloses that the movable tuning slugs are identical (col. 3, lines 12-14). NAPOLI et al. does not disclose or suggest that a thickness of at least one of the movable tuning slugs 20 differs from a thickness of another one of the movable tuning slugs 20. Therefore, NAPOLI et al.'s movable tuning slugs cannot correspond to the plurality of shims recited in amended claim 18.

For at least the foregoing reasons, Applicant submits that claim 18 is patentable over ALLEN and NAPOLI et al., whether taken alone or in any reasonable combination.

Claims 18-20 were rejected under the judicially created doctrine of double patenting as unpatentable over claims 1-9 of U.S. Patent No. 6,664,868. Applicant respectfully traverses with respect to the claims, as now amended.

The initial burden of establishing a *prima facie* basis to deny patentability to a claimed invention always rests upon the Examiner. In re Oetiker, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). To make a proper rejection under the judicially created doctrine of obvious-type double patenting, the Examiner should clearly set forth the differences between the inventions defined by the conflicting claims (i.e., a claim in the present application compared to a claim in the patent) and the reasons why a person of ordinary skill in the art would conclude that the invention defined in the claims in issue is an obvious variation of the invention defined in the claims in the patent. See M.P.E.P. § 804.

Claims 18-20 of the present application include different features than claims 1-9 of U.S. Patent No. 6,664,868. The Examiner has not identified the differences between the claims in U.S. Patent No. 6,664,868 and the claims in the present application and the reasons why a person of ordinary skill in the art would conclude that the invention defined in the claims in issue is an obvious variation of the invention defined in the claims in the patent. Accordingly, the Examiner has not met the necessary burden of proof.

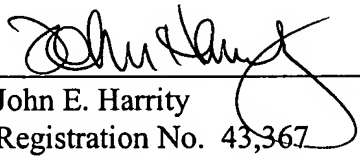
For at least the foregoing reasons, Applicant requests that the rejection of claims 18-20 under the judicially created doctrine of double patenting as unpatentable over claims 1-9 of U.S. Patent No. 6,664,868 be reconsidered and withdrawn.

In view of the foregoing amendments and remarks, Applicant respectfully requests the Examiner's reconsideration of this application, and the timely allowance of the pending claims.

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 13-2491 and please credit any excess fees to such deposit account.

Respectfully submitted,

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